

**From:** [Casey, Carolyn](#)  
**To:** [Ballew, Mary](#)  
**Cc:** [Wainberg, Daniel](#)  
**Subject:** RE: sampling results letter  
**Date:** Thursday, June 14, 2018 1:20:00 PM  
**Attachments:** [Cumplings RTC from May 18 on prog report.pdf](#)

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Mary, In addition to the email I sent on 6/11, as promised the critical exposure pathway (CEP) info from the MCP is included below.

I think to provide focus it would be helpful if we could do the following:

1. verify with the shortforms or with the Mass DEP (Nancy Bettinger or the woman listed in the short forms), if we can't get to the equations due to macros, what factors are key in the VI risk assessment, (i.e., exposure frequency see (6/11 email), body weight, respiration rate?)
2. Are these parameters in the school short forms as conservative as EPA values or conservative enough at least for an initial screen, in particular for an infant and young child? As I stated, we will also get a full blown risk assessment and hopefully before Feb 2019, even if they plan another round of IDA sampling next winter (not currently in their schedule).
3. Regarding their full blown RA, they included the response to our comments in the attached document. Could you take a look at this and let me know if you have anything to add, concerns or questions. I have inserted my comments in sticky notes. Note they said they would use the residential short forms in their written proposal.
4. Review my draft responses to comments on the attached submittal before our meeting next week. I will prep that and get to you by COB today (formal comments from #3 directly above- attached doc). They claim in an email that we have a "substantial disconnect" but I think we are actually closer to agreeing on the fact that (a) there is a VI pathway in at least one area (I'm thinking at least two), and (b) at least there is no imminent hazard (IH). I would rather do this by response to comments than on a call but perhaps both would be best.
5. Confirm with MassDEP whether or not they agree that iaw Section 40.04124 of the MCP, this is a Site Where an Immediate Response Action is Required because of the CEP, not an IH. See yellow highlight 40.04124(4), below.
6. Talk to Nancy B about the CEP ??? and/or plan a call with Jack for early next week before our call with Cummings next wed, whether he will be on the call or not.

If in fact the school shortforms are appropriate for the scenario(s) we have, then Jack email of this is good news in that there is no imminent hazard (IH\*) as defined by the MassDEP MCP. They still need to run these shortforms and provide this documentation to us. They also need to evaluate the critical exposure pathway (CEP). This means, even if there is no imminent hazard, they still may have to eliminate the pathway where vapor intrusion is occurring. I think it will make the most sense to talk to the DEP after they run the short forms for each suite or better yet, each room.

\* Imminent Hazard means a hazard which would pose a significant risk of harm to health, safety, public welfare or the environment if it were present for even a short period of time, as further described in 310 CMR 40.0950.

**Critical Exposure Pathways mean those routes by which oil and/or hazardous material(s)**

released

at a disposal site are transported, or are likely to be transported, to human receptors via:

(a) vapor-phase emissions of measurable concentrations of oil and/or hazardous materials into the living or working space of a pre-school, daycare, school or occupied residential dwelling;

or

(b) ingestion, dermal absorption or inhalation of measurable concentrations of oil and/or hazardous materials from drinking water supply wells located at and servicing a pre-school, daycare, school or occupied residential dwelling.

#### 40.0411: General Provisions for Immediate Response Actions

(1) Immediate Response Actions shall assess release, threat of release and/or site conditions and, where appropriate, contain, isolate, remove or secure a release or threat of release of oil and/or hazardous material in order to:

(a) abate, prevent or eliminate an Imminent Hazard to health, safety, public welfare or the environment; and/or

(b) respond to other time-critical release, threat of release and/or site conditions.

(2) Any person who performs an Immediate Response Action shall do so in accordance with all applicable requirements and specifications prescribed in 310 CMR 40.0000. Except when specifically exempted by the Department due to the Department's level of involvement in the oversight of the Immediate Response Action, RPs, PRPs and Other Persons conducting Immediate

Response Actions shall engage or employ the services of a Licensed Site Professional.

(3) The Department may make a determination that an Immediate Response Action involving assessment, containment and/or removal actions is needed at any site, consistent with the provisions of 310 CMR 40.0412. In such cases, the Department shall inform the RP or PRP of the need for, and scope of, response actions. When informing the RP or PRP would unacceptably

delay the conduct of the Immediate Response Action, or when the RP or PRP is unable or unwilling to conduct the required actions, or otherwise fails to act in a timely manner, the Department may undertake the Immediate Response Action.

(4) Immediate Response Actions shall not, to the extent practicable, prevent or impede the implementation of future response actions.

(5) Immediate Response Actions shall be conducted in compliance with all applicable local, state and federal permitting and approval requirements.

(6) Health and safety procedures consistent with the provisions of 310 CMR 40.0018 shall be implemented at sites where an Immediate Response Action is being conducted.

(7) RPs, PRPs and Other Persons undertaking response actions under the provisions of 310 CMR 40.0000 shall continually assess and evaluate release and site conditions in order to determine if an Immediate Response Action is required.

(8) RPs, PRPs or Other Persons conducting an Immediate Response Action that involves a remedial action(s) to prevent, control, or eliminate an Imminent Hazard or address a Critical Exposure Pathway shall comply with the provisions of 310 CMR 40.1403(11) for notifying Affected Individuals.

#### 40.0412: Sites Where an Immediate Response Action is Required

Immediate Response Actions shall be conducted at the following sites:

(1) sites or vessels where a release or threat of release of oil and/or hazardous material has occurred which requires notification to the Department under the "Two Hour" notification provisions of 310 CMR 40.0311 or 40.0312;

(2) sites where a release or threat of release of oil and/or hazardous material has occurred which requires notification to the Department under the "72 Hour" notification provisions of 310 CMR 40.0313 or 40.0314;

- (3) sites where a release of oil and/or hazardous material has resulted in conditions which have been determined to pose an Imminent Hazard pursuant to 310 CMR 40.0950; and  
(4) any other site or vessel where the Department determines that immediate or accelerated response actions are necessary to prevent, eliminate, or minimize damage to health, safety, public welfare or the environment.
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**From:** Casey, Carolyn

**Sent:** Friday, June 08, 2018 8:50 AM

**To:** Wainberg, Daniel ; Zucker, Audrey

**Subject:** RE: sampling results letter

I really don't want to wait for a meeting. I suggest sending the following today to get them moving. Craig, I think we all agree the back and forth email is not productive. We need an evaluation of the data similar to the attached and in accordance with the approved Written Proposal. This evaluation of the data needs to be completed prior to developing and distributing the individual letters to the schools/day care facilities. Refer to my email dated 16 May 2019 (attached for your convenience). I will be providing a formal disapproval of the schedule submitted in email from you dated 29 May, 2018 based primarily on the date for human health risk assessment completion date of February 2019. This risk assessment need to be completed ASAP and no later than June 30, 2018, so that the letters to the schools/day care facilities accurately reflect the results. A Critical Exposure Pathway Evaluation also needs to be completed as appropriate and iaw the MCP.

## **8.0 RISK ASSESSMENT AND ENVIRONMENTAL INDICATORS ANALYSIS**

### **8.1 Risk Assessment**

After the completion of sampling events for each specific investigation, a risk characterization will be performed as needed using the laboratory analysis data. The risk assessment will be in accordance with the necessary provisions of the MCP (310 CMR 40.0900) and currently accepted standards for assessments of this nature using Method 3 risk assessment protocols. Each indoor sampling building location will be evaluated separately as its own exposure point using the protocols for unrestricted use (i.e., residential or child day care).

All detected compounds in the indoor air samples will be initially carried throughout the risk assessment to determine the most conservative total Site risk; however compounds may be removed from the assessment if their detection is shown not to be due to vapor intrusion. Exposure point concentrations for each compound shall be based on the maximum detected concentrations between the various seasonal sampling events. For each individual compound, the carcinogenic and noncancer

risks will be determined using the most current information available from the risk characterization databases available from the EPA and/or the MassDEP. Initial risk-based target levels are based on carcinogenic and noncancer risks (where available) for each compound from the EPA Regional Screening Level Resident Air Supporting Table (May 2016) and the MassDEP Final Vapor Intrusion Guidance, MassDEP Policy WSC# 16-435, October 2016. Compounds that have available noncancer

information but do not have carcinogenic information will be presumed to have been previously established as noncarcinogenic compounds. A compound that has no existing available information as to carcinogenic or noncancer risks will be evaluated the same as a similar compound that has available information (e.g., 1,3,5-trimethylbenzene shall be

evaluated as 1,2,4-trimethylbenzene) unless it is considered to be prevalent in the environment, in which case said compound will not be carried throughout the risk characterization (e.g., ethanol and ethyl acetate). Exposure factors to be used will be those created by MassDEP in the MCP Method 3 Risk Assessment for Residents Exposed to Chemicals in Indoor Air Shortform (i.e., residential exposures will be evaluated assuming an exposure period of 24 hours per day, 365 days per year). Carcinogenic risks will be calculated for the young child (ages 1-7) and the child/adult (ages 8-30). Noncancer risks will be calculated for the young child (ages 1-7). The individual carcinogenic and noncancer risks for all compounds in each sampling location will be summed into a total risk for that particular location.

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**From:** Craig Ziady [<mailto:craig@cummings.com>]

**Sent:** Wednesday, June 06, 2018 5:37 PM

**To:** Casey, Carolyn <[Casey.Carolyn@epa.gov](mailto:Casey.Carolyn@epa.gov)>

**Cc:** [bhoskins@fslassociates.com](mailto:bhoskins@fslassociates.com); Steve Drohosky <[sjd@cummings.com](mailto:sjd@cummings.com)>; Wainberg, Daniel <[Wainberg.Daniel@epa.gov](mailto:Wainberg.Daniel@epa.gov)>; Zucker, Audrey <[Zucker.Audrey@epa.gov](mailto:Zucker.Audrey@epa.gov)>

**Subject:** RE: sampling results letter

Carolyn – Thanks for your email. For obvious reasons, it is frustrating to read that EPA “did not necessarily need a response to comments” when a prior email in the very same thread notified us that EPA would not respond to our May 8 proposed letter to daycare owners *until we responded to your May 16 comments*. In that same email, we were asked specifically when EPA “can expect . . . responses” to your comments. We spent hours preparing responses to the comments because EPA expressly asked for them. It is neither productive, efficient, nor fair for us to have expended that time and money on a task EPA requested, only to have EPA, upon receipt of the responses, disavow the request.

Even more problematic is our apparent disagreement on vapor intrusion in general. Although we cannot quite discern if EPA’s disagreement is grounded in the science or the text of the report, the parties’ apparently contradictory opinions present as a showstopper. Would EPA prefer that we rewrite the conclusion as, “there is no evidence of significant vapor intrusion in the sampled building areas”? Such a statement is readily defensible based on the data we have collected thus far. We have successfully demonstrated that significant vapor intrusion (both from the physical aspect and in combination with risk assessment screening) is not occurring based on the evaluation process in MassDEP’s vapor intrusion policy. If EPA disagrees with this conclusion, then a further discussion is warranted, so we can understand the factual bases for EPA’s conclusion. Until such discussion takes place (if it is necessary) and the issue is resolved, I respectfully submit that there is no value in rewriting, revising, and resubmitting the schedule, the proposed letters, or the progress report. If you believe that a conference call would be helpful to discuss these issues further, please let me know.

Thanks

Craig

*Craig J. Ziady*

*General Counsel*

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**From:** Casey, Carolyn [<mailto:Casey.Carolyn@epa.gov>]

**Sent:** Wednesday, May 30, 2018 4:43 PM

**To:** Craig Ziady

**Cc:** [bhaskins@fslassociates.com](mailto:bhoskins@fslassociates.com); Steve Drohosky; Wainberg, Daniel; Zucker, Audrey

**Subject:** FW: sampling results letter

Craig, This is in response to the questions you raise in your email to Audrey below regarding the letter to school/daycare facilities.

We did not necessarily need a response to comments. What we needed were EPA's comments addressed by making the appropriate corrections, explanations and/or clarifications in a revised progress report. Although we don't typically find the need to review and comment on progress reports, we are using these reports to summarize data and provide documentation to schools/daycare-facilities and parents about vapor intrusion and any potential risk; therefore, the progress reports should contain accurate information, and the progress report and letters should provide consistent information and conclusions.

Are there any plans to at least run MassDEP RA Shortforms (if appropriate for this site) for each suite so that any potential for risk, or lack thereof, can be communicated in these letters as well?

We are not in agreement with your statement in the letter to the school/daycare facilities that "there is no evidence of potential vapor intrusion in the sampled building areas." I appreciate the effort in the response to comments to provide an individual assessment for each suite. A similar and complete individual assessment should be provided in each letter to the manager of each suite.

The letters to each school/daycare facilities should include a complete laboratory report with their individual results and also include a summary table of the results. A generic letter will not suffice since the results and conclusions will differ for each suite.

Please resubmit the proposed schedule and include a date to resubmit the letters and a revised progress report. Please let me know if you would like to discuss any of the issue in this email.

Thanks,

Carolyn

Carolyn J. Casey

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**From:** Craig Ziady [<mailto:craig@cummings.com>]

**Sent:** Tuesday, May 22, 2018 3:29 PM

**To:** Zucker, Audrey <[Zucker.Audrey@epa.gov](mailto:Zucker.Audrey@epa.gov)>; Casey, Carolyn <[Casey.Carolyn@epa.gov](mailto:Casey.Carolyn@epa.gov)>

**Cc:** Wainberg, Daniel <[Wainberg.Daniel@epa.gov](mailto:Wainberg.Daniel@epa.gov)>; Gregory Flaherty <[gxf@cummings.com](mailto:gxf@cummings.com)>; Bruce Hoskins <[bhaskins@fslassociates.com](mailto:bhoskins@fslassociates.com)>; Steve Drohosky <[sjd@cummings.com](mailto:sjd@cummings.com)>

**Subject:** RE: sampling results letter

Hi Audrey – Thanks for your note. I had not realized that Bruce was not copied on Carolyn's comments. We have just spoken about them, and we will have a response for you shortly. I'm not sure I understand, however, why the comments on the proposed letter to Mr. Drohosky need to be delayed pending a response to Carolyn's comments. We continue to believe it is important to communicate with our clients about the testing sooner rather than later. Also, the idea that Carolyn's comments are "draft" comments and that some more fulsome comments may still be forthcoming – likely after we have responded to the draft comments – does not present as terribly efficient. We are working hard to be responsive to your requests at the same time we are continuing to advance the significant field activities of the Consent Order – all while keeping our clients apprised of ongoing activities. In this regard, I am working on finalizing a proposed timetable for ecological site activities, and will have that to you today or tomorrow, I believe, under separate cover. If you have any questions in the meantime, please let me know.

Thank you.

Craig

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**From:** Zucker, Audrey [<mailto:Zucker.Audrey@epa.gov>]

**Sent:** Tuesday, May 22, 2018 12:20 PM

**To:** Casey, Carolyn; Craig Ziady

**Cc:** Wainberg, Daniel; Gregory Flaherty

**Subject:** RE: sampling results letter

Craig – Just to be clear, with respect to the draft letter to the day care centers that you provided to us on May 8<sup>th</sup>, we will provide you with comments after you have addressed the issues in Carolyn's May 16 email below.

Please let me know when we can expect your responses to Carolyn's email. Thanks.

(fyi--Carolyn has been out of the office unexpectedly. So, I just wanted to make sure that you understood that we do plan to comment on your May 8 draft letter.)

Audrey

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**From:** Casey, Carolyn

**Sent:** Wednesday, May 16, 2018 8:30 AM

**To:** Craig Ziady <[craig@cummings.com](mailto:craig@cummings.com)>

**Cc:** Zucker, Audrey <[Zucker.Audrey@epa.gov](mailto:Zucker.Audrey@epa.gov)>; Wainberg, Daniel <[Wainberg.Daniel@epa.gov](mailto:Wainberg.Daniel@epa.gov)>; Gregory Flaherty <[gxf@cummings.com](mailto:gxf@cummings.com)>

**Subject:** RE: sampling results letter

For each suite, the sample results should be provided along with the letter and include an appropriate evaluation of the data. We are still in disagreement with the conclusion that no vapor intrusion is occurring. We should resolve this prior to providing that information to the suite managers/parents.

I also have comments on the progress report and until they are addressed, it would not be appropriate to share the data. Draft comments attached.

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**From:** Craig Ziady [<mailto:craig@cummings.com>]

**Sent:** Tuesday, May 15, 2018 1:22 PM

**To:** Casey, Carolyn <[Casey.Carolyn@epa.gov](mailto:Casey.Carolyn@epa.gov)>

**Cc:** Zucker, Audrey <[Zucker.Audrey@epa.gov](mailto:Zucker.Audrey@epa.gov)>; Wainberg, Daniel <[Wainberg.Daniel@epa.gov](mailto:Wainberg.Daniel@epa.gov)>; Gregory Flaherty <[gxf@cummings.com](mailto:gxf@cummings.com)>

**Subject:** sampling results letter

Hi Carolyn – Now that the April 2018 Progress Report is complete, we would like to finalize the letter to the clients in whose premises the indoor air testing occurred. You had requested an opportunity to review this letter, and we provided a draft on May 8 during our meeting. Could you please confirm ASAP whether you have any comments.

Thank you.

Craig

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